their salts, phenolsulfonic acids and their salts, formaldehyde condensates, fatty alcohol sulfates, and substituted benzenesulfonic acids and their salts.

A preferred mixture would be 2-chlorophosphonic acid 10%-20% and Phosphoric Acid 1%-40%. This formulation would then be mixed with water as a carrier and applied to the foliage of the target plant at a rate of 3 gallons/Acre to 30 gallons/Acre. However, other acids will have a similar effect as seen in Table 1. Muratic Acid increased the efficacy of ethephon and the speed of the effect on cotton defoliation.

Table 1. Efficacy of ethephon applied with and with out the addition of muratic acid on the defoliation of cotton. Trial conducted in Bells TN Oct. 2003.

Target Code				Cotton		Cotton	
Part Rated				LEAF		LEAF	
Type				DEFOLIATION		DEFOLIATION	
Rating Unit				percent		percent	
Rating Date				Oct-13-03		Oct-16-03	
Trt-Eval Interval				3 DA-A		6 DA-A	
Trt No.	Treatment Name	Rate	Rate Unit				
1	Untreated			0	b	0	c
2	ETHEPHON	16	FL OZ/A	10.8	b	19.6	bc
3	ETHEPHON	16	FL OZ/A	16.7	a	30	b
	MURATIC ACID	4	% V/V				
4	ETHEPHON	32	FL OZ/A	16.7	b	16.7	bc
5	ETHEPHON	32	FL OZ/A	30	a	46.7	a
	MURATIC ACID	4	% V/V				

Claims

1. A composition formed by mixing (a) an acid with (b) phosphonic compounds. Acids in group (a) include, but are not limited to: hydrochloric, muratic, nitric,

phosphoric, phosphorous, poly phosphoric, perchloric, citric and acetic acids. Phosphonic compounds in group (b) are selected from but not limited by the group consisting of (2-chloroethyl)phosphonic acid and salts of (2-chloroethyl)phosphonic acid.

2. A method for increasing the efficiency and efficacy of a phosphonic compounds (b) in controlling vegetation, the method comprising the step of applying to the vegetation a composition formed by mixing acids (a) a phosphonic compounds (b) and applying mixture to target plant foliage.

3. The method of claim 2 where the defoliation efficiency of the compound is increased.

4. The method of claim 2 where the plant growth regulator efficiency of the compound is increased.

5. The method of claim 2 where the growth inhibition efficiency of the compound is increased.

6. The method of claim 2 where the vegetation is cotton and the boll opening efficiency of the compound is increased.

7. The method of claim 2 where the vegetation is cotton and the defoliation efficiency of the compound is increased.

8. The method of claim 2 where the plant height stunting efficiency of the compound is increased.

9. The method of claim 2 where 2% volume to volume of the acid is applied with phosphonic compounds to the target plant which includes: apples, barley, blackberries, bromeliads, cantaloupes, cherries, coffee, cotton, cranberries,